

## CLAIMS

1. A method of transmitting Ethernet data frames from a first local area network (LAN) to a second local area network (LAN) comprising the steps of :
  - 5 - mapping Ethernet frames from the first local area network onto a Plesiochronous Digital Hierarchy (PDH) data stream via Generic Framing Procedure (GFP),
  - transmitting said mapped Ethernet frames via a first En-network to an SDH-level network,
- 10 - receiving the transmission at the second local area network through the SDH-level network ,
  - demapping the Ethernet frames from the first local area network via Generic Framing Procedure, and transmitting said demapped frames into the second local area network.
- 15 2. The method of claim 1, according to which said mapping is carried out at a junction point between the first Ethernet LAN and a first En-network.
- 20 3. The method of any of claims 1 or 2, according to which said demapping is carried out at a junction point between the second En-network and the second Ethernet LAN.
- 25 4. The method of any of the previous claims, according to which the transport of the GFP frames through the SDH-network is carried out by means of so called virtual containers, VCx-containers.
5. A system for transmitting Ethernet data frames from a first local area network (110) to a second local area network, comprising :
  - means (130) for mapping Ethernet frames from the first local area network onto Plesiochronous Digital Hierarchy format via Generic Framing Procedure (GFP),

- means (140) for transmitting said mapped Ethernet frames via a first En-network to an PDH-level network.

6. The system of claim 5, additionally comprising means for:

5 - receiving (140') the transmission at the second local area network through the SDH-level network via a second En-network,  
- demapping (130') the Ethernet frames from the first local area network via Generic Framing Procedure, and transmitting said demapped frames into the second local area network.

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7. The system of claim 5 or 6, in which the means for said mapping is arranged at a junction point between the first Ethernet LAN and a first En-network.

15 8. The method of any of claims 6 or 7, according to which said means for demapping is arranged at a junction point between the second En-network and the second Ethernet LAN.

9. The system of any of claims 5-8, in which the transport of the GFP frames  
20 through the SDH-network is carried out by means of so called virtual containers, VCx-containers.